

### **Remarks**

This amendment responds to the official action mailed November 15, 2005, and is submitted with a three month extension and the required official fee.

By this response applicant seeks to limit the claims in number and to recite in the claims subject matter that was deemed allowable in an earlier action if corrected for matters of form. In the official action of March 5, 2003, claims 6, 7 and 9 were considered directed to allowable subject matter (see ¶1.63 thereof), and claims 14, 18, 21, 27 were objected to and not made subject to a prior art rejection. Although not identical to the original claims (which contained alternative expressions that were the subject of certain objections), claim 1 as now presented is of a scope comparable to original claim 9.

Claims 3-5, 8, 10-13, 16-27, 30, 34, 35 are being canceled, without prejudice to their possible presentation in a divisional or continuation application. The associated disclosure supporting the canceled claims is no longer required in this application and is being canceled. This obviates a number of the rejections and objections that have been made as to formal requirements and/or rejections under 35 U.S.C. §§112, 102 or 103 based on the claims that are now being canceled. No new matter is presented. The application is believed to be in condition for allowance.

Claims 1 and 2 as amended find enabling support in the Specification as filed. Applicant has copied the text of the claims identically into the Summary section of the Specification.

Original drawing pages 6/9 to 9/9 of the original application are removed, together with the corresponding description. Applicant submits annotated copies showing changes in the specification and in the drawings including cancellation of sheets/figures 6 to 9, and certain other changes that are mentioned below. Applicant

also submits (as application parts) clean substitute drawing prints and a substitute specification, in each case with the changes entered.

With reference to the objections to claims 1 and 2 under 35 U.S.C. §112, second paragraph, the matters mentioned in the official action at ¶¶.37-40 are corrected. Applicant agrees that the leaf spring contact the inner wall of the shaft as opposed to some inner structure that is not disclosed. Claim 1 as amended is specific as to how the inclination angle of the tip device is controlled. Claim 2 now states that the control part produces longitudinal movement of an ink device for controlling the inclination of the tip device.

Pending claims 1 and 2 were rejected under 35 U.S.C. §103 over a combination of Garvey and Krannak. The rejections primarily concern Garvey, US 1,687,647. Garvey lacks a mechanism operable from the rear end controllably to divert the tip device laterally from the longitudinal axis of the sleeve shaped shaft. Instead, Garvey has a spring mounted tip that is loose and can be diverted when lateral pressure is applied during writing, or pressed longitudinally, in each case to unseat an ink feed valve. Garvey lacks important elements that are particularly and distinctly recited in claim 1.

Garvey's tip can be diverted from the longitudinal axis, and Garvey has a pressure application mechanism that can be adjusted as to tension, namely screw 14 that can be used to adjust the force of a cylinder spring 13. But this force does not produce inclination of the tip relative to the longitudinal axis. The spring tension is adjustable to control the force applied to hold closed the valve structure that releases ink. The valve is held closed by longitudinal force holding a valve body against a valve seat.

Garvey's tip can be tilted by pressure so as to unseat the valve and open the flow of ink or to control the rate of by pushing the valve more or less open. One way to do this is to tilt the valve body on the valve seat. Assuming that the user holds the Garvey writing instrument with the longitudinal axis of the shaft or barrel at an angle relative to a sheet surface on which he/she is writing, and applies pressure in a direction normal to

the plane of the sheet, pressure is exerted by the sheet that can divert Garvey's tip away from the longitudinal axis, thereby lifting one side of the valve body off of its valve seat and increasing the release of ink. If the user applies harder lateral force, the valve opens wider and a heavier line of ink is released onto the sheet. See page 2, line 48 to 55.

As noted, it is possible to adjust the pressure exerted by Garvey's spring. However, the only control device in Garvey is the spring tension adjustment. Garvey's device has no control element capable of causing the tip to become inclined. Applicant's claimed invention provides a mechanism by which the tip angle can be set to a desired angle of inclination, especially for ergonomic reasons whereby the user can hold the shaft or barrel of the writing implement at a comfortable angle relative to the sheet and apply the tip to the sheet as a different and preferably steeper angle, namely an angle chosen and set by adjusting the control to establish a tip inclination. Garvey's device has no control that can incline the tip. Insofar as the tip can be diverted by manual pressure against the page, Garvey's tip inclination is anti-ergonomic. In any event, Garvey does not disclose or suggest the invention defined in applicant's claim 1 as amended because Garvey lacks a control at the terminal end of the shaft by which to control the inclination of the tip.

Claim 1 as amended particularly and distinctly defines a writing instrument wherein a terminal control part controls the angular position of the tip device. Garvey lacks a terminal control part and lacks any way to determine the angular position of the tip. The ability of the user to unseat an internal ink valve by manually changing the position of an internal ink valve biased by longitudinal pressure does not meet or suggest applicant's claimed invention.

In the official action, reference is made to the passage in Garvey at page 1, line 48, where Garvey says that the user can follow his natural inclination by holding the instrument at a desired angle and pressing lightly to make light lines or pressing hard to make heavy lines. There is nothing in that passage that discloses or suggests that the user has a control that sets a tilt angle. Garvey explains that the user might be inclined

to hold the writing tool at a relatively higher or lower angle relative to the sheet. There is no statement or implication of a mechanism to control the tip angle relative to the shaft of the tool. Garvey allows the user to press lightly or hard to obtain light or heavy ink flow. Whereas the pressure on the tool must be varied to tilt and unseat the valve so as to control the ink flow rate, there is clearly no teaching that the user should be able to control the tilt. If the tilt was controlled, the user would be denied the opportunity to vary the ink flow rate with pressure.

Garvey lacks a mechanism capable of controlling tip inclination. Garvey alone or in combination with Krannak does not meet the limitation of a control by which applicant causes a terminal part to adjust the angle of tip inclination. The prior art lacks the specific claimed parts of applicant's mechanism. The prior art does not have a terminal control. The prior art does not have a leaf spring arrangement controlled from any other parts. The prior art thus fails to meet the subject matter of claim 1 as a whole. The prior art also lacks a control that operates through an ink device such as a refill as in claim 2, which recites that longitudinal force is carried by the ink device from the terminal control to the tip as in claim 2. Such a provision would also defeat Garvey's teachings of adjusting longitudinal force to control ink flow. Whether considered individually or in combinations, the prior art does not meet or suggest the invention claimed as a whole.

Garvey cannot lead the person of ordinary skill to applicant's invention even in hindsight. One might posit in hindsight that lateral pressure resulting in tilting of the stem 10 in Garvey might produce longitudinal displacement of shaft A at the valve leading to the ink reservoir. However longitudinal displacement by direct longitudinal pressure also will open the valve in Garvey. Tilt is not required. A review of the positions of structures in Garvey's Fig. 5, wherein valve 4 opens by tilting of the tip due to manual pressure against the sheet, shows that the valve body moves orthogonally in addition to tilting. The user pushes downwards endwise against the sheet.

The user may be inclined to tilt the longitudinal axis and press in a direction normal to the paper, thus unseating the valve. In that event, a component of force

exerted by the user is along the longitudinal axis. The user might hold the tool directly perpendicular to the paper and press down. In that case all the force is longitudinal and the valve is likewise unseated. In any such scenario, there is no mechanism to control tilt. In Garvey, there is structural relationship by which pressure opens the ink valve. The Garvey valve is advantageous because it works regardless of tilt of the tool. There is no relationship of the user's control (namely the rate of ink flow) to the tilt of a tip. The control is matter of user pressure on the sheet.

Applicant's claimed invention specifically permits the user to set the tilt angle of the tip from a terminal control. There is no similar device disclosed or suggested in the prior art of record. Applicant's terminal control part is defined as to where it is located. The terminal part is defined in claim 1 as being at the rear end portion of the shaft. This is not disclosed or suggested at figure 5 of Garvey or elsewhere.

Rear end portion of the shaft in claim 1 is the end opposite from the writing end. Claim 2 likewise relies on a position remote from the end in that the force is coupled through an ink device in the shaft. It is not reasonably possible to find a comparable terminal part in Garvey. The defined terminal part certainly cannot be considered disclosed or suggested by any part of Garvey's shaft A.

Garvey's shaft has a rearward or terminal end portion. The butt end of the shaft opposite from the writing end is shown at the top end of Garvey's Fig. 1. There is no control for tilt associated with the rearward end. It is only the writing end shown in Figs. 2 and 5 that has anything to do with movement.

For these reasons, Garvey does not meet or routinely suggest the claimed invention. Furthermore, applicant's claims as a whole are not rendered obvious by a combination of references, including Garvey and Krannak.

Claim 1 is not obvious from a combination based on Krannak, which has a ball valve biased closed by a spring. At page 2, lines 5/6, a sort of ballpoint pen operation is mentioned, by free rotation of the closure ball valve 18 of figure 1. Figure 3 of Krannak's tube pen is pertinent for a sheet metal spring 25, pressing the ball 24 against a valve seat. Depressing the ball against spring pressure opens the valve. Nevertheless, there

is not routine way to extend the Krannak disclosure to operation of a leaf spring with respect to tilting of a substantially conical tip device that is arranged to hinge in a manner similar to applicant's invention. Krannak is limited to act on the ball 24/80 which is consistent with Garvey, wherein a spring resists longitudinal displacement of a valve body on a valve seat.

A person of ordinary skill, considering the leaf spring 25 of figure 3 of Krannak, would have no routine way to apply the disclosed structures as a resetting force provider for a substantially conical tip device as defined in claim 1. He would also not find such a device in Garvey, where the object is also to allow the user to open and close a valve. The motivation provided in both references for using springs is no more than simply opening and closing a valve.

The prior art devices have different objects compared to the claimed invention. The invention is intended to enable ergonomic positioning of the angular position of the writing tip of a writing implement versus the longitudinal axis. For this purpose, a control operable at the rear end of the shaft can provide a tilted or inclined orientation of the substantial conical tip device relative to the shaft axis and a spring provides resetting force against which the control force operates from a control part at the back end of the shaft. Nothing of this teaching is made obvious from the documents provided. These teachings are not found in the prior art including Garvey, Krannak and Rosenbaum as well.

Objection was made in the official action to terminology appearing in the claims and being copied into the disclosure as allegedly substituting for a further explanation of details surrounding the terminology. Applicant submits that the disclosure is sufficient to enable a person of ordinary skill to make and use the invention, and there should be no difficulty in understanding the reasonable breadth of the terms employed. This is now particularly the case because the claims are reduced to claims 1 and 2 as amended.

Regarding the term "leaf shaped spring," applicant has adopted the simple idiomatic expression "leaf spring." This term is well known and understood and its

usage is consistent with the disclosure. The use of a leaf spring to provide spring force, is supported in the disclosure and is claimed. The leaf spring is used to oppose the action of the control operated at the rearward end of the shaft. This subject matter is likewise clear and supported by the disclosure. While it may be possible for a user to press in the same direction that the return spring operates, this possibility does not render the disclosure insufficient or the claims unclear.

Applicant has obviated a number of the objections to the drawings and claims by cancelling the subject matter to which the examiner objects. Figs. 6 to 9 are cancelled.

Applicant proposes to separately number figures that were grouped as subparts A through E under one figure heading.

Reference numeral 51 was used to refer generally to the protrusions 51. Applicant has disclosed two types of protrusions. In order to obviate the objection on the ground that the same number is used for different elements, applicant proposes to introduce 51' (i.e., fifty-one prime). Fig. 5A has a general number 51. Figs. 5C and 5D have 51'. The specification is amended consistently.

Fig. 5c has line shaped protrusions, which may be reduced to point shaped protrusions shown in Fig. 5D, which can engage a thread.

A similar issue might be raised with respect to the three receiving portions 52, although no objection has been made. In anticipation of a potential objection, applicant introduces single and double primes (52, 52', 52''), appearing in Fig. 5D.

Object was made with respect to reference numbers 41, 42. Portion 41 refers to the channel and has been added to Fig. 2b (the number already appeared in Fig. 2a). The reference number 42 is now used to refer to the elastic part of the channel that is shown bent in Fig. 2b.

Designation "L" identifies the bearing (the letter L derived from the German term "Lager" in the international filing). However, number 23 was also used for the bearing and identifies part of the bearing. As amended, the bearing is generally identified as element "L" and two parts, namely protrusions 13, 23. A step 14 is disposed between

the flattening 15 and the protrusion 13. These reference designations are consistently used in the specification and drawings, to overcome the respective objections.

The changes to the drawings are represented by attached annotated copies showing changes. The corresponding changes to the specification are being submitted as a marked up copy showing changes. The changed copies are being appended to these remarks. Applicant also submits a substitute specification (changes entered) and replacement sheets for drawing sheets 1 through 5. These substitute/replacement portions are being submitted as application parts.

Item 13 in the official action 13 contained several objections to particular terms. A number of the objections are obviated by cancellation of claims and removal of the subject matter of Figs. 6-9 from the disclosures. Regarding remaining points, paragraph 5 mentions the conically shaped tip device. The sleeve shaped shaft is found in paragraphs 6 and paragraph 21.

The sleeve is named in paragraph 13 and is seen in Figs. 4A to 4E, including the aspect of having a wall and being hollow inside. The depicted structure could aptly be termed a sleeve or tube or hollow shaft. The wording in claim 1 (sleeve shaped shaft) can be found at several places in the specification, including paragraphs 6, 7, 10, 21, etc.

In the official action, some issues were presented about the description of an "inner wall." As mentioned in the official action, the passages referenced appear to refer to an inner surface of the sleeve shaped shaft. The description and drawings support that the leaf spring touches the inside of the sleeve shaped shaft. Perhaps the translation of "durch Anlage der Blattfeder an der Innenwand des Schaftes" could have been idiomatic. However the matter can be corrected without introducing new matter.

The aspect of touching the inner surface is mentioned in paragraph 20 (pointed out in applicant's response to paper Nr. 15, page 3). Paragraph 40 mentions protrusion at the front end of the shaft and at the inside thereof. Original claim 9 was clear in this respect. This matter is therefore corrected by reference to the inner surface as suggested by the examiner's comments.



The bearing structure no longer is recited in claim 2. However the bearing L is shown in Fig. 2b. Support is found at paragraph 9, 21, 40, etc. The longitudinal movement results in the change of angle, the displacement being referenced to the bearing L. Relative movement was recited as "with respect to the bearing" in original claim 2, as a functional relation. The same relative movement of the refill relative to the shaft which houses the refill is also disclosed in the embodiment (claim 2) wherein the ink device (especially an ink refill) is displaced relative to the sleeve shaped shaft that carries the refill.

In item 15 of the official action, objection is made to the resetting force. The spring force is larger when the leaf spring is more bent, and vice versa. Reconsideration or clarification is requested with respect to this item. In particular, if the objection is maintained, applicant requests information expounding on what aspect is not considered to be supported. It is believed to be readily apparent that a spring (including a leaf spring) that is bent relative to its rest position will exert a resisting spring force that becomes larger with increased bending displacement. If the spring is mechanically arranged to become deformed as a result of rotation or hinging of a part to which the spring is coupled, then the force can be called torque and referenced to the pivot point. These aspects find enabling support in the disclosure. Reference can be made to paragraph 20, or paragraphs 9 and 20 in combination. The disclosure is sufficient to enable a person of ordinary skill in the art to make and use the subject matter claimed.

The scope of issues presented has been reduced substantially in an effort to advance prosecution of claims directed to subject matter that is believed to be allowable and was favorably received in an early official action. The claims as amended are supported by an enabling disclosure. Formal matters have been addressed insofar as understood.

The claims particularly and distinctly define the subject matter of the invention. The differences between the invention and the prior art are such that the subject matter

claimed as a whole is not shown to have been known or obvious. Reconsideration and allowance of the claims are requested.

Respectfully submitted,

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